

ABSTRACT OF THE DISCLOSURE

A method for introducing and stabilizing heterologous and recombinant genes in a thermophilic host in which a characteristic gene defining a detectable host characteristic is inactivated or deleted from the thermophilic host, resulting in a modified thermophilic host expressing an absence of the detectable host characteristic.

A DNA fragment of interest is inserted into the modified thermophilic host together with an intact characteristic gene, whereby the detectable host characteristic is restored to the thermophilic host, thereby enabling detection and confirmation of successful transformation using plasmid vectors and integration of the DNA fragment into the chromosome of the thermophilic host.